

# INTERNATIONAL SEARCH REPORT

Internati	Application No
PCT/US 03/06330	

**A. CLASSIFICATION OF SUBJECT MATTER**  
 IPC 7 H04L29/06 H04L29/08 H04L1/00

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
 IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ, INSPEC

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>US 5 978 386 A (KARI HANNU ET AL)    2 November 1999 (1999-11-02)</p> <p>abstract    column 6, line 40 - line 60    column 8, line 13 - line 50; figure 4    ---</p> <p>EP 0 602 806 A (ADVANCED MICRO DEVICES INC) 22 June 1994 (1994-06-22)</p> <p>abstract    column 5, line 49 -column 9, line 53;    figures 2-6    ---    -/-</p>	1-3, 13, 18-23, 26, 31, 36-40, 42, 46
Y		1-3, 13, 18-23, 26, 31, 36-40, 42, 46

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

- A\* document defining the general state of the art which is not considered to be of particular relevance
- E\* earlier document but published on or after the international filing date
- L\* document which may throw doubts on priority, claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- O\* document referring to an oral disclosure, use, exhibition or other means
- P\* document published prior to the international filing date but later than the priority date claimed

- T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- &\* document member of the same patent family

Date of the actual completion of the international search

10 November 2003

Date of mailing of the international search report

18. 11. 03

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## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-47

An HDLC accelerator comprising of a framer and deframer

2. Claims: 48-52

A multi-bit CRC generator

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 444 832 A (MOTOROLA INC) 4 September 1991 (1991-09-04)	1, 4, 16, 21, 32
Y	abstract page 4, line 7 - line 54; figure 4 ---	5
P, X	WO 02 073910 A (QUALCOMM INC) 19 September 2002 (2002-09-19) abstract page 8, paragraph 1025; figures 1,2 page 9, paragraph 1028 -page 11, paragraph 1035; figures 3,4 ---	1, 4, 5, 21, 24, 26
Y	US 5 638 370 A (LEWIS GLENN ET AL) 10 June 1997 (1997-06-10) abstract column 5, line 9 -column 6, line 30 column 13, line 8 -column 14, line 48 ---	5
X	US 5 724 368 A (ZOOK CHRISTOPHER P) 3 March 1998 (1998-03-03) abstract column 1, line 61 -column 3, line 16 column 4, line 11 -column 13, line 55 figures 1-8 ---	48-52
A	US 6 212 660 B1 (ZWICKLER UWE ET AL) 3 April 2001 (2001-04-03) abstract column 3, line 5 -column 5, line 47 column 5, line 59 -column 10, line 13 figures 4-9 ---	48-52
A	ROGINSKY A L ET AL: "Efficient computation of packet CRC from partial CRCs with application to the Cells-In-Frames protocol" COMPUTER COMMUNICATIONS, ELSEVIER SCIENCE PUBLISHERS BV, AMSTERDAM, NL, vol. 21, no. 7, 15 June 1998 (1998-06-15), pages 654-661, XP004132233 ISSN: 0140-3664 section 3.1 figure 5 ---	48-52

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